

REMARKS

Claims 1-8 are pending. Claim 6 was amended to address antecedent basis issues. Claim 3 was amended to improve its form.

35 U.S.C. § 112, second paragraph, rejection

Claim 6 was amended to address the antecedent basis issue.

35 U.S.C. § 102(b) rejection

Claims 1-8 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,967,050 (Seymour). Applicants respectfully traverse this rejection.

1. Seymour

Seymour discloses a method for controlling a plurality of ink control devices on a printing press. The printing press operates to repetitively print an image on a substrate. The ink control devices each control the amount of ink supplied to a respective ink key zone on the substrate. The method in Seymour operates as follows:

1. Color values are measured for a plurality of pixels of a selected image printed on the substrate to produce an acquired image array.
2. The acquired image array is aligned with a target image array comprised of target color values for the plurality of pixels.
3. The acquired image array is compared with the target image array on a pixel by pixel basis.
4. A matrix equation is determined linking ink control device adjustments to changes in color values of the image printed on the substrate via sensitivity factors for each of the plurality of pixels.
5. A least squares solution is obtained to the matrix equation to determine ink adjustments for each ink key zone.
6. The ink adjustments are communicated to the ink control devices.

The invention in Seymour has nothing whatsoever to do with the claimed invention.

In the outstanding Office Action, the Examiner refers to various portions of Seymour as allegedly disclosing the claimed invention, including portions of the background section, column 7, lines 10-15, and column 7, lines 20-32.

The background section of Seymour describes prior art methods for controlling ink control devices. One process measures a color bar printed on a “web.” The color bar is used as a test target image (column 2, lines 5-12). The “web” is the paper that is being printed by the printing press. However, the color bar referred to in Seymour is printed simultaneously with the printing of the image that is to appear on the paper, referred to in Applicant’s claimed invention as the “content image portion.” That is, the color bar referred to in Seymour exists in conjunction with the printed image (content image portion). Seymour thus describes the well-known process of printing a color bar on a printed image. Typically, the color bar is printed the trim area of the paper, as described in column 2, lines 10-11 of Seymour.

Stated another way, the printing process described in the background section of Seymour refers to a printing run wherein the image on the web is being printed. The printing process described in the background section of Seymour is not performed to print only color bars on blank sheets of paper. That is, the test target image (i.e., the color bar) always exists on paper that also includes the content image portion.

Column 7, lines 11-18 of Seymour reads as follows:

Another way to obtain the target image color values is to scan a color proof. A color proof of the desired image to be printed is almost always available and is advantageous because the proof is presumably closer to the image that the customer desires, possibly closer even than the press is capable of providing. Unfortunately, the proof often only includes continuous tone information and may not include line art or text.
(underlining added for emphasis)

The color proof described in this text portion also includes the printed image (content image portion) because a color proof, by definition, inherently includes the printed image (content image portion). See the definitions of a “color proof” in the Appendix to this Amendment. This text portion does not describe that any color bar is printed on the color proof. However, it is

known to do so. Thus, at best, column 7, lines 11-18 merely discloses a conventional process of printing a color proof with a color bar thereon.

Column 7, lines 20-32 of Seymour reads as follows:

It is also possible to obtain the target image color values by directly using the video camera to obtain data directly from the on-press image once a color OK has been issued. A color OK indicates that the printed image on the web has been deemed acceptable. Using the on-press image itself to obtain the target image data is easier than using the prepress data, because the on-press image provides reflectance values directly and does not require the additional calculations involving dot gain and the Neugebauer equations. Also, it is unnecessary to correct for magnification and rotation translations (described below) because the target image data is obtained by the video camera under conditions similar to those under which the acquired image data is obtained.
(underlining added for emphasis)

This text portion describes using the printed image (content image portion) itself for the target image. In this embodiment, there are no color bars at all printed on the paper. Thus, this embodiment is not relevant to the claimed invention.

2. Patentability of claim 1 over Seymour

Claim 1 reads as follows (underlining added for emphasis)

1. Proofing paper comprising:

- (a) a first blank region for subsequent printing of a content image portion;
and
- (b) a second region outside of the first blank region having one or more standard color bars pre-printed thereon.

As discussed above, Seymour does not disclose or suggest element (a) of the proofing paper. The printed paper that is described in the background section, and the color proof described in column 7, lines 11-18 and 20-32 of Seymour all include the content image portion. Thus, Seymour does not disclose or suggest proofing paper having a blank region for subsequent printing of a content image portion, and actually teaches away from this claim limitation.

On page 3 of the Office Action, the Examiner asserts that the claimed “first blank region” is met by the region of the paper that allows a printed output to be printed, and the claimed “second region...having one or more standard color bars pre-printed thereon” is met by the color bar described in column 7, lines 10-25.

In response, claim 1 recites proofing paper having the combination of elements (a) and (b), not elements (a) and (b) taken individually. All paper is initially blank. Applicant is not claiming a blank piece of paper. As discussed above, nowhere in the printing process does Seymour produce paper having a color bar, but no content image portion. Conventional printing processes simultaneously print the color bars and the content image portion. That is, the color bar is not printed first, followed by a printing of the content image portion. For example, if the first color in the printing unit 14 shown in Fig. 1 of Seymour is blue, then the blue portion of the color bar is printed simultaneously with the blue portion of the content image portion. Thus, there is not even any intermediate step in Seymour where a web (paper) has only a color bar, but no content image portion.

Accordingly, claim 1 is believed to be patentable over Seymour.

3. Patentability of claim 3 over Seymour

Claim 3 reads as follows (underlining added for emphasis)

3. A hard proof that can be visually inspected to determine if the hard proof meets industry standards, the hard proof being a sheet of proofing paper comprising:
(a) a content image portion;
(b) one or more standard first color bars pre-printed on the sheet of proofing paper prior to printing of the content image portion thereon; and
(c) one or more second color bars printed along with the content image portion and printed in a predefined relationship to the one or more first color bars so as to allow for visual inspection directly on the proofing paper using only the color bar image data of the first and second color bars, and without using any external color reference materials, wherein a visually discernable color match indicates that a proof which meets industry standards has been made and a visually discernable color mismatch indicates that a proof which meets industry standards has not been made.

In the Office Action, the Examiner states that the claimed “one or more standard first color bars” are met by column 2, line 6 of Seymour which describes that the test target image can be in the form of a color bar comprised of individual color patches. The Examiner further states that the claimed “one or more second color bars” are met by patches of standard primary colors, as described on column 2, lines 7-10 of Seymour. This analogy is incorrect because the patches of standard primary colors are the color patches of the same color bar referred to in column 2, line 6. The patches of standard primary colors are not associated with a second color bar, but are actually constituents of the color bar referred to in column 2, line 6. Thus, all that column 2, lines 5-16 of Seymour discloses is one color bar printed on the paper, as clearly understood by viewing this text portion as a whole, which reads as follows:

The test target image that is measured is often in the form of a color bar comprised of individual color patches. The color bar typically extends the width of the web. Typically, the patches include solid patches and halftone patches for each of the primary ink colors, as well as a few solid overprints. The color bar is often printed in the trim area of the web and may be utilized for registration as well as color monitoring purposes. Each solid patch has a target density that the color control system attempts to maintain. The inking level is increased or decreased to reach this target density. The halftone patches are also monitored (computing dot gain) to determine if the water balance is proper.

Accordingly, Seymour does not disclose or suggest element (c) in claim 3, and thus claim 3 is believed to be patentable over Seymour.

4. Patentability of dependent claims

The dependent claims are believed to be allowable because they depend upon respective allowable independent claims, and because they recite additional patentable limitations.

35 U.S.C. § 101 rejection

The Examiner asserts that “[d]ata that is preprinted in certain regions of a page is merely text or image(s), and the combination does not impart functionality. The paper and data

combination does not result in a useful, concrete and tangible result.” Applicant respectfully traverses this rejection.

Claim 3 recites a hard proof that can be visually inspected to discern color match/mismatch, thereby determining if the hard proof meets industry standards. Claim 3 recites the elements of the hard proof that allows for the visual inspection, namely, (1) the one or more first color bars, and (2) the one or more second color bars printed in a predefined relationship to the one or more first color bars.

The ability to perform visual inspection to discern color match/mismatch is a useful, concrete and tangible result. Furthermore, the ability to do so without using any external color reference materials is a significant advancement over the prior art and provides clear “real world” value and functionality. Thus, the explicitly claimed elements in claim 3 are exactly the elements that provide a useful, concrete and tangible result, namely, a hard proof that can be visually inspected.

The fact that these elements are data preprinted in certain regions of a page does not in any way detract from the fact that the preprinted data itself provides a useful, concrete and tangible result, here, visual inspection of the hard proof for color matching/mismatching without using any external color reference materials. Many types of data preprinted on a page are potentially patentable. For example, optical scan forms that contain markings arranged in a particular manner to allow for improved registration provide a useful, concrete and tangible result, and thus are potentially patentable, even though the markings are just preprinted data on certain regions of a page. Furthermore, Class 283 (Printed Matter) is entirely devoted to inventions related to the arrangement of preprinted data (indicia) on paper. Thousands of U.S. patents have been issued to a specific arrangement of markings on a preprinted form. The hard proof of claim 3, likewise, contains markings (i.e., color bars) that provide improved functionality.

Claim 1 recites proofing paper comprising a specific combination of regions, namely, a blank region for subsequent printing of a content image portion, and a second region outside of the first blank region having one or more standard color bars pre-printed thereon. This specific combination of regions likewise provides a useful, concrete and tangible result. In the prior art, proofing paper is either completely blank (i.e., no indicia at all is printed anywhere on the

proofing paper) or it contains a content image portion, either with or without a color bar printed thereon. Applicant's invention provides a novel and unobvious alternative option, namely proofing paper that has a blank content image portion, but with one or more standard color bars pre-printed thereon. A useful, concrete and tangible result is provided by this type of proofing paper because it allows for the proofing paper to be visually inspected for color matching/mismatching as discussed above when the proofing paper is subsequently printed with the content image portion and a second bar code having a predefined relationship with the pre-printed bar code. Claim 1 thus provides clear "real world" value and functionality.

Annex IV of the USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility"¹ discusses "printed matter" as follows:

The USPTO must consider all claim limitations when determining patentability of an invention over the prior art. In re Gulack, 703 F.2d 1381, 1385, 217 USPQ 401, 403-04 (Fed. Cir. 1983). The USPTO may not disregard claim limitations comprised of printed matter. See Gulack, 703 F.2d at 1384, 217 USPQ at 403; see also Diehr, 450 U.S. at 191, 209 USPQ at 10. However, the examiner need not give patentable weight to printed matter absent a new and unobvious functional relationship between the printed matter and the substrate. See In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994); In re Ngai, 367 F.3d 1336, 70 USPQ2d 1862 (Fed. Cir. 2004).

Here, Applicant has clearly demonstrated that the claimed "printed matter" a new and unobvious functional relationship between the printed matter and the substrate.

Reconsideration of the § 101 rejection of claims 1 and 3 is respectfully requested in view of the arguments above.

Conclusion

Insofar as the Examiner's rejections were fully addressed, the instant application is in condition for allowance. Issuance of a Notice of Allowability of all pending claims is therefore earnestly solicited.

¹ OG Notice: November 22, 2005.

Application No. 10/822,617
Reply to Office Action of June 2, 2006

Respectfully submitted,

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APPENDIX
(to Reply to Office Action of June 2, 2006)
for U.S. Application No. 10/822,617

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Definitions of **color proof** on the Web:

- A reproduction of a piece before it goes on press made by photomechanical or digital means in less time and at a lower cost than press proofs. Also called an off-press proof.
www.rainwater.com/glossary/c.html
- The color proof is the final proof of the cover that is printed in color on paper similar to the final directory cover. Schools give final approval on the color proof, and it must be returned to the printer. (Click to download Color Cover Approval Form)
www.universitydirectories.com/Local%20Site/PUB-DRG-Glossary.html
- Image created using process color inks, pigments or dyes to predict the appearance of the final printed sheet.
www.rockprint.com/dictionary.shtml
- A representation of the final printed product used for checking color accuracy and other elements.
www.imagebanksearch.com/source/help/helpglossary.asp
- A printed copy of the artwork which gives a simulated impression of the final printed product.
www.westernstatesenvelope.com/labels/glossary/gloss_C.htm

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